FlyBy Math™ Alignment
Mathematics Grade-Level Expectations

Number and Number Relations

Grade-Level Expectations	FlyBy Math™ Activities
10. Use and explain estimation strategies to predict computational results with positive fractions and decimals (N-6-M)	--Apply mathematics to solving distance, rate, and time problems for aircraft conflict scenarios. --Predict outcomes and explain results of mathematical models and experiments.
13. Use models and pictures to explain concepts or solve problems involving ratio, proportion, and percent with whole numbers (N-8-M)	--Apply mathematics to solving distance, rate, and time problems for aircraft conflict scenarios. --Predict outcomes and explain results of mathematical models and experiments.

Measurement

Grade-Level Expectations	FlyBy Math™ Activities
18. Measure length and read linear measurements to the nearest sixteenth-inch and mm (M-1-M)	--Calculate and measure the position and time of simulated aircraft. Represent that motion using tables, graphs, equations, and experimentation.
20. Calculate, interpret, and compare rates such as $/lb., mpg, and mph (M-1-M) (A-5-M)	--Apply mathematics to solving distance, rate, and time problems for aircraft conflict scenarios. --Compare airspace scenarios for both the same and different starting conditions and the same and different rates. --Interpret the slope of a line in the context of a distance-rate-time problem.

Geometry

Grade-Level Expectations	FlyBy Math™ Activities
28. Use a rectangular grid and ordered pairs to plot simple shapes and find horizontal and vertical lengths and area (G-6-M)	--Plot points on a schematic of a jet route, on a vertical line graph, and on a Cartesian coordinate system to describe the motion of two airplanes.

Data Analysis, Probability, and Discrete Math

Grade-Level Expectations	FlyBy Math™ Activities
30. Describe and analyze trends and patterns observed in graphic displays (D-2-M)	--Use tables, bar graphs, line graphs, a Cartesian coordinate system, and equations to model aircraft conflicts and predict outcomes.

Patterns, Relations, and Functions

Grade-Level Expectations	*FlyBy Math*[TM] **Activities**
37. Describe, complete, and apply a pattern of differences found in an input-output table (P-1-M) (P-2-M) (P-3-M)	--Represent distance, speed, and time relationships for constant speed cases using tables, bar graphs, line graphs, equations, and a Cartesian coordinate system.